REMARKS

I. Present Status of Patent Application

Claims 1 through 32 are currently pending.

Claims 1 through 32 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious in view of Fijolek *et al.* (U.S. Patent Number 6,510,162) and Laubach *et al.* (U.S. Patent Number 6,081,533).

II. Finality of Current Office Action

The current Office Action indicates that "Applicant's amendment necessitated the new ground(s) of rejection . . . ." However, no claims were amended in Applicant's previous response. Hence, Applicant respectfully submits that the finality of the current Office Action is improper. Applicant, therefore, requests that the current Office Action be non-final.

III. Discussion of Rejections

A. Rejection of Claims 1 Through 32 Under 35 U.S.C. § 103(a)

The Office Action rejects claims 1 through 32 under 35 U.S.C. § 103(a) as being unpatentable over Fijolek *et al.* (U.S. Patent Number 6,510,162, hereinafter "Fijolek") and Laubach *et al.* (U.S. Patent Number 6,081,533, hereinafter "Laubach"). For at least the reasons set forth below, Applicant traverses this rejection.

1. Independent Claim 1

Applicant submits that claim 1 is neither anticipated nor obvious in view of Fijolek and

Laubach.

The Examiner admits that "Fijolek does not explicitly teach establishing a subnet connection . . . ." However, the Office Action alleges that Laubach teaches the establishing of "subnet connections." Hence, the Office Action alleges that Laubach, in conjunction with Fijolek, renders claim 1 obvious. Insofar as Applicant disagrees with the interpretation of Laubach, Applicant respectfully submits that claim 1 is patentable.

As previously noted in response to the non-final Office Action of October 23, 2002, with reference to Loukianov (U.S. Patent Number 6,249,526), the Media Access Control (MAC) address in Asynchronous Transfer Mode (ATM) is not a part of the Internet Protocol (IP) address. Insofar as the subnet address is a part of the IP address, the subnet address is distinct from the MAC address of ATM.

Insofar as Laubach teaches MAC addresses in ATM, Laubach necessarily suffers from the same deficiency as Loukianov. The cited portions of Laubach recite:

> In summary, packet data originating from backend LAN/WAN network 101 are sent to the headend controller 103 and converted into ATM cells. These ATM cells are prioritized and routed according to their respective virtual connections and sent downstream as RF signal(s) over the CATV network 104. The target STU(s) 106 demodulate the RF signal(s), convert the ATM cells into data packets, and forwards the packet data to PCs 107. Conversely, a number of PCs 107 may forward packet data to their respective STUs 106. The packet data are converted into ATM cells and transmitted upstream in a slotted burst mode over the CATV network 104 to the headend controller 103. The ATM cells are then converted back into packet data which are sent on to the LAN/WAN network 101.

Laubach at column 4, lines 49-63 (emphasis supplied).

> FIG. 8 is a schematic diagram illustrating how multiple Ethernet controllers can support different virtual private networks. In the example shown, Ethernet Controller #2 is assigned to virtual

private network W, and Ethernet Controller #3 is assigned to virtual private network X. Ethernet Controller #2 can send a unicast signal (WU3) and a multicast signal (WM) to the Transmit Channel #3. Likewise, Ethernet Controller #3 can send a unicast signal (XU3) and a multicast signal (XM) to the same Transmit Channel #3 even though it has a different interface than that of Ethernet Controller #2. And because the same Transmit channel is being used, there is no need for a copy network. On the upstream side, the Receiver Channel Port Card #3 receives both unicast signals from the virtual private network W (W3) as well as from virtual private network X (X3). The W3 signal is routed through virtual circuits of the ATM Switch to Ethernet Controller #2 while the X3 signal is routed to the Ethernet Controller #3. It should be noted that the present invention allows for scalability and a variety of interconnections and configurations. This flexibility also allows one Ethernet controller to participate in multiple MAC domains and multiple Ethernet Controllers to participate in any combination of downstream channels, upstream channels, and MAC domains. Furthermore, other types of data (e.g., video, voice, future services, etc.) can be carried as virtual circuit connections. For example, the virtual circuit connection V3 from Voice Controller Port Card 714 can be established to carry voice data on the downstream channel 703 through Transmit Channel #3 by means of line 707. On the upstream, voice data on channel 704 is received by Receiver Channel Port Card #3 and Traffic Scheduler 706. This voice data is input to the Common ATM Switch Fabric 705 by line 708. A virtual circuit V3 is established to carry the upstream voice data to the Voice Controller Port Card 714 via line 716. Similarly, the same type of virtual circuit connections can be established to carry video data corresponding to Video Controller Port Card 712.

Laubach at column 11, lines 26 through 62 (emphasis supplied).

Various TV control functions (e.g., channel selection, volume control, picture-in-picture, sound, contrast, etc.) can be implemented by means of an Infrared Remote Control & Processor 1506. Furthermore, video-on-demand functionality is provided by converting infrared commands to packets for transfer to the video controller in the headend unit for further processing. A subscriber can select any one of a number of movies to receive. The selection is input via the Remote Control 1506 and conveyed by microprocessor 1002 to microcontroller 607. The selection is then transmitted upstream in the form of one or more management ATM cells to the HCX Controller. Based on this information, the appropriate movie title is then retrieved from a disk array or other

> mass storage device. The appropriate virtual connections are established and the video is sent downstream by the Video Controller Port Card to the requesting STU in the form of ATM cells. These ATM cells are then converted by the Digital Video Signal Processor 1505 into RF signals for input to the subscriber's TV set.

Laubach at column 11, lines 26 through 62 (emphasis supplied).

As such, Laubach describes "virtual circuit connections" and transmission "in the form of ATM cells." Thus, Laubach does not teach a "subnet connection" as recited in claim 1. Since Laubach does not teach a "subnet connection," and since the Examiner admits that Fijolek does not teach a "subnet connection," it is axiomatic that the combination of Fijolek and Laubach cannot teach a "subnet connection."

Since Fijolek and Laubach, either alone or in combination, fails to teach a "subnet connection" as recited in claim 1, Applicant respectfully submits that claim 1 is allowable. Applicant, therefore, respectfully requests allowance of independent claim 1.

2. Independent Claim 9

Applicant submits that claim 9 is neither anticipated nor obvious in view of Fijolek and Laubach. The Examiner admits that "Fijolek does not explicitly teach establishing a subnet connection . . . ." The Office Action, however, alleges that Laubach teaches the establishing of "subnet connections." Hence, the Office Action alleges that Laubach, in conjunction with Fijolek, renders claim 9 obvious. Insofar as Applicant disagrees with the interpretation of Laubach, Applicant respectfully submits that claim 9 is not obvious.

As noted above, a MAC address in ATM is not a part of the IP address and is, therefore, distinct from a subnet address. Insofar as Laubach teaches MAC addresses, Laubach does not

teach a "subnet connection" as recited in claim 9. Since neither Laubach nor Fijolek teach a "subnet connection," the combination of Fijolek and Laubach cannot teach a "subnet connection."

Because neither Fijolek nor Laubach, either alone or in combination, teach a "subnet connection" as recited in claim 9, Applicant respectfully submits that claim 9 is allowable. Hence, Applicant respectfully requests allowance of independent claim 9.

3. Independent Claim 10

Applicant submits that claim 10 is neither anticipated nor obvious in view of Fijolek and Laubach. Since Fijolek and Laubach, either alone or in combination, fails to teach a "subnet connection" as recited in claim 10, Applicant respectfully submits that claim 10 is allowable. Thus, Applicant respectfully requests allowance of independent claim 10.

4. Independent Claim 12

Applicant submits that claim 12 is neither anticipated nor obvious in view of Fijolek and Laubach. As noted in the previous Office Action, claim 12 explicitly recites a "communications route." Claim 12 recites both an "internal communications route" and an "external communications route." Applicant respectfully submits that the current Office Action fails to address Applicant's position, namely, that the "communications route" of claim 12 is distinct from "path" of Fijolek.

To reiterate Applicant's position, the Office Action specifies that column 4, lines 40 through 57 and column 5, line 43 through column 6, line 12 of Fijolek contain a reference to

"communications route." However, Applicant can find no reference to "route[s]" in these sections of Fijolek. At several other places within claim 12, the words "Internet Protocol" and/or "IP" are used. One skilled in the art of IP technology will be aware that "communications routes" in IP are a more refined concept from the "path" described in col. 4, line 41 of Fijolek. The Office Action cannot just ignore this understanding of routes in Internet Protocol networks.

The absence of a "communication route" in Fijolek cannot be cured by simply providing a reference that allegedly teaches a "virtual connection or logical connection 'external communication route' to route IP packets . . . ." In other words, Laubach, which allegedly teaches an external communication route, does not remedy the fact that Fijolek does not teach an internal communication route.

For at least this reason, Applicant respectfully submits that claim 12 is allowable and, therefore, respectfully requests allowance of independent claim 12.

5. Independent Claim 18

Applicant submits that claim 18 is neither anticipated nor obvious in view of Fijolek and Laubach. The Examiner admits that "Fijolek does not explicitly teach establishing a subnet connection . . . ." As noted above, Laubach also does not teach a "subnet connection." Hence, the combination of Fijolek and Laubach cannot teach a "subnet connection."

Since Fijolek and Laubach, either alone or in combination, fail to teach a "subnet connection" as recited in claim 18, Applicant respectfully submits that claim 18 is allowable. Applicant, therefore, respectfully requests allowance of independent claim 18.

6. Independent Claim 21

Applicant submits that claim 21 is neither anticipated nor obvious in view of Fijolek and Laubach. Since neither Fijolek nor Laubach, either alone or in combination, teaches a "subnet connection" as recited in claim 21, Applicant respectfully submits that claim 21 is allowable. Therefore, Applicant respectfully requests allowance of independent claim 21.

7. Dependent Claims 2-8, 11, 13-17, 19, 20, and 22-32

Claims 2 through 8 depend from allowable independent claim 1; claim 11 depends from allowable independent claim 10; claims 13 through 17 depend from allowable independent claim 12; claims 19 and 20 depends from allowable independent claim 18; and claims 22 through 32 depend from allowable independent claim 21. Applicant respectfully submits that, insofar as claims 2-8, 11, 13-17, 19, 20, and 22-32 depend from allowable independent claims, for at least this reason, claims 2-8, 11, 13-17, 19, 20, and 22-32 are allowable. Applicant, therefore, respectfully requests allowance of claims 2-8, 11, 13-17, 19, 20, and 22-32. In addition, Applicant does not intend to admit anything regarding any other statement in the Office Action that is not explicitly referenced in this response.

IV. Cited References Made of Record

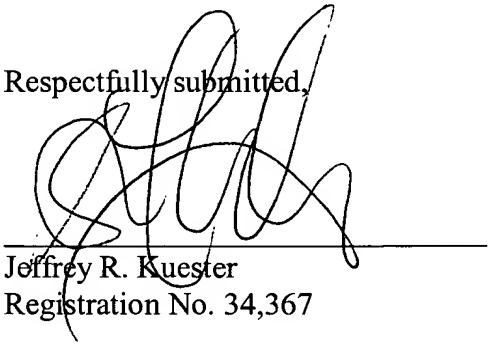
The cited references made of record have been considered, but are not believed to affect the patentability of the presently pending claims.

CONCLUSION

Applicant respectfully submits that all claims are now in proper condition for allowance, and respectfully requests that the Examiner pass this case to issuance. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to deposit account no. 20-0778.

Respectfully submitted,



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